

What is claimed is:

1           1.       A communication method comprising the steps of:  
2           providing a first executable application at a server, the first executable application  
3           requiring a first amount of memory for proper execution;  
4           executing a second executable application at a client, the second executable  
5           application occupying a second amount of memory;  
6           providing a first data portion at a client, the first data portion occupying a third  
7           amount of memory, the first data portion being accessible by the second executable  
8           application;  
9           providing a second data portion at a client, the second data portion having a lower  
10          priority than the first data portion, the second data portion occupying a fourth amount of  
11          memory, the second data portion being accessible by the second executable application;  
12          receiving an input at the client, the input corresponding to the first executable  
13          application on the server; and  
14          determining, in response to receiving the input, whether the client has sufficient  
15          available memory for execution of the first executable application.

1           2.       The method of claim 1, wherein the step of providing the first data portion  
2           further comprises the step of:  
3           providing a current program data file.

1           3.       The method of claim 2, wherein the step of providing the second data  
2           portion further comprises the step of:  
3           providing a future program data file.

1           4.       The method of claim 1, further comprising the step of:  
2           downloading the first executable application in response to determining that the  
3           client has sufficient available memory for execution of the first executable application.

1           5.       The method of claim 1, further comprising the steps of:  
2           purging the second data portion from the memory in response to determining that  
3           the client has insufficient available memory for execution of the first executable  
4           application; and  
5           deciding, in response to purging the second data portion, whether the client has  
6           sufficient available memory for execution of the first executable application.

1           6.       The method of claim 5, further comprising the step of:  
2           downloading the first executable application in response to deciding that the client  
3           has sufficient available memory for execution of the first executable application.

1           7.       The method of claim 5, further comprising the steps of:  
2           purging the first data portion from the memory in response to further determining  
3           that the client has insufficient available memory for execution of the first executable  
4           application; and  
5           assessing, in response to purging the first data portion, whether the client has  
6           sufficient available memory for execution of the first executable application.

1           8.       The method of claim 7, further comprising the step of:  
2           downloading the first executable application in response to assessing that the  
3           client has sufficient available memory for execution of the first executable application.

1           9.       The method of claim 7, further comprising the steps of:  
2           purging the second executable application from the memory in response to  
3           assessing that the client has insufficient available memory for execution of the first  
4           executable application; and  
5           evaluating, in response to purging the second executable application, whether the  
6           client has sufficient available memory for execution of the first executable application.

1           10.       The method of claim 9, further comprising the step of:  
2           downloading the first executable application in response to evaluating that the  
3           client has sufficient available memory for execution of the first executable application.

1           11.       A communication system comprising:  
2           a client having a tuner, the client being capable of receiving broadcast  
3           information, the client being in bi-directional communication with a server, the server  
4           having an executable application, the executable application requiring an amount of  
5           memory for proper execution; and  
6           a memory manager in the client, the memory manager being configured to  
7           determine whether the client has sufficient available memory for proper execution of the  
8           executable application, the server being configured to transmit the executable application  
9           in response to the memory manager determining that the client has sufficient memory for  
10          proper execution of the executable application.

1           12.     A communication method comprising the steps of:  
2           establishing a bi-directional communication pathway between a client and a  
3     server, the client having a tuner, the client being capable of receiving broadcast  
4     information, the server having an executable application, the executable application  
5     requiring an amount of memory for proper execution;  
6           receiving an input at the client, the input corresponding to the executable  
7     application on the server; and  
8           determining, in response to receiving the input, whether the client has sufficient  
9     available memory for proper execution of the executable application.

1           13.     The method of claim 12, wherein the memory is a volatile memory.

1           14.     The method of claim 12, further comprising the steps of:  
2           allocating the required amount of memory from the available memory in response  
3     to determining that the client has sufficient available memory for proper execution of the  
4     executable application; and  
5           requesting the executable application from the server upon allocating the required  
6     amount of memory.

1           15.     The method of claim 12, further comprising the steps of:  
2           purging data contained in the memory in response to determining that the client  
3     has insufficient available memory for proper execution of the executable application; and  
4           determining, in response to purging the data, whether the client has sufficient  
5     available memory for proper execution of the executable application.

1           16.     The method of claim 15, further comprising the steps of:  
2           purging a pre-existing application contained in the memory in response to  
3     determining that the client has insufficient available memory for proper execution of the  
4     executable application after purging data contained in the memory; and  
5           determining, in response to purging the pre-existing application, whether the client  
6     has sufficient available memory for proper execution of the executable application.

1           17.     The method of claim 15, wherein the step of purging data comprises the  
2     step of:  
3           purging the memory in accordance with a dynamic list of priorities.

1           18.     The method of claim 15, wherein the step of purging the memory  
2     comprises the steps of:  
3           purging a data file having television viewing information for future days prior to  
4     purging a data file having television viewing information for a current day; and  
5           purging a data file having television viewing information for a current day prior to  
6     purging an application loaded upon initialization.

1           19.     The method of claim 15, further comprising the steps of:  
2           iteratively repeating the purging and determining steps until the client has  
3           sufficient available memory for proper execution of the executable application;  
4           allocating the required amount of memory from the available memory in response  
5           to determining that the client has sufficient available memory for proper execution of the  
6           executable application; and  
7           requesting the executable application from the server upon allocating the required  
8           amount of memory.

1           20.     The method of claim 15, wherein the step of purging the data comprises  
2           the step of purging data in accordance with a dynamic list of priorities.

1           21.     The method of claim 12, further comprising the steps of:  
2           purging a pre-existing application contained in the memory in response to  
3           determining that the client has insufficient available memory for proper execution of the  
4           executable application; and  
5           determining, in response to purging the pre-existing application, whether the client  
6           has sufficient available memory for proper execution of the executable application.

1           22.     The method of claim 21, further comprising the steps of:  
2           iteratively repeating the purging and determining steps until the client has  
3           sufficient available memory for proper execution of the executable application;  
4           allocating the required amount of memory from the available memory in response  
5           to determining that the client has sufficient available memory for proper execution of the  
6           executable application; and  
7           requesting the executable application from the server upon allocating the required  
8           amount of memory.

1           23.     The method of claim 21, wherein the step of purging the pre-existing  
2           application comprises the step of purging the memory in accordance with a dynamic list  
3           of priorities.

1           24.     The method of claim 12, further comprising the steps of:  
2           compacting a private heap in response to determining that the client has  
3           insufficient available memory for proper execution of the executable application; and  
4           determining, in response to compacting the private heap, whether the client has  
5           sufficient available memory for proper execution of the executable application.

1           25.     The method of claim 12, further comprising the steps of:  
2           compacting a system heap in response to determining that the client has  
3           insufficient available memory for proper execution of the executable application; and  
4           determining, in response to compacting the system heap, whether the client has  
5           sufficient available memory for proper execution of the executable application.

1           26.     A communication method comprising the steps of:  
2           establishing a bi-directional communication pathway between a client and a  
3     server, the client having a tuner, the client being capable of receiving broadcast  
4     information, the server having an executable application, the executable application being  
5     executable using a normal amount of memory, the executable application further being  
6     executable using a reduced amount of memory;  
7           receiving an input at the client, the input corresponding to the executable  
8     application on the server; and  
9           determining, in response to receiving the input, whether the client has sufficient  
10    available memory for execution of the executable application using the normal amount of  
11    memory.

1           27.     The method of claim 26, further comprising the steps of:  
2           allocating the normal amount of memory from the available memory in response  
3     to determining that the client has sufficient available memory for execution of the  
4     executable application using the normal amount of memory; and  
5           requesting the executable application from the server upon allocating the normal  
6     amount of memory.

1           28.     The method of claim 26, further comprising the steps of:  
2           determining, in response to determining that the client has insufficient available  
3     memory for execution of the executable application using the normal amount of memory,  
4     whether the client has sufficient available memory for execution of the executable  
5     application using the reduced amount of memory.



1           29.     The method of claim 28, further comprising the steps of:  
2                 allocating the reduced amount of memory from the available memory in response  
3     to determining that the client has sufficient available memory for execution of the  
4     executable application using the reduced amount of memory; and  
5                 requesting the executable application from the server upon allocating the reduced  
6     amount of memory.

1           30.     The method of claim 28, further comprising the steps of:  
2                 purging data contained in the memory in response to determining that the client  
3     has insufficient available memory for execution of the executable application using the  
4     reduced amount of memory; and  
5                 determining, in response to purging the data, whether the client has sufficient  
6     available memory for execution of the executable application using the reduced amount  
7     of memory.

1           31.     The method of claim 30, further comprising the steps of:  
2                 iteratively repeating the purging and determining steps until the client has  
3     sufficient available memory for execution of the executable application using the reduced  
4     amount of memory;  
5                 allocating the reduced amount of memory from the available memory in response  
6     to determining that the client has sufficient available memory for execution of the  
7     executable application using the reduced amount of memory; and  
8                 requesting the executable application from the server upon allocating the reduced  
9     amount of memory.

1           32.     The method of claim 30, wherein the step of purging the data comprises  
2     the step of purging data contained in memory in accordance with a dynamic list of  
3     priorities.

1           33.     The method of claim 28, further comprising the steps of:  
2             compacting a private heap in response to determining that the client has  
3     insufficient available memory for execution of the executable application using the  
4     reduced amount of memory; and  
5             determining, in response to compacting the private heap, whether the client has  
6     sufficient available memory for execution of the executable application using the reduced  
7     amount of memory.

1           34.     The method of claim 28, further comprising the steps of:  
2             purging a pre-existing application contained in the memory in response to  
3     determining that the client has insufficient available memory for execution of the  
4     executable application using the reduced amount of memory; and  
5             determining, in response to purging the pre-existing application, whether the client  
6     has sufficient available memory for execution of the executable application using the  
7     reduced amount of memory.

1           35.     The method of claim 34, further comprising the steps of:  
2           iteratively repeating the purging and determining steps until the client has  
3           sufficient available memory for execution of the executable application using the reduced  
4           amount of memory;  
5           allocating the reduced amount of memory from the available memory in response  
6           to determining that the client has sufficient available memory for execution of the  
7           executable application using the reduced amount of memory; and  
8           requesting the executable application from the server upon allocating the reduced  
9           amount of memory.

1           36.     The method of claim 34, wherein the step of purging the pre-existing  
2           application comprises the step of purging the pre-existing application in accordance with  
3           a dynamic list of priorities.

1           37.     The method of claim 28, further comprising the steps of:  
2           compacting a system heap in response to determining that the client has  
3           insufficient available memory for execution of the executable application using the  
4           reduced amount of memory; and  
5           determining, in response to compacting the system heap, whether the client has  
6           sufficient available memory for execution of the executable application using the reduced  
7           amount of memory.

1           38.     A communication method comprising the steps of:  
2           establishing a bi-directional communication pathway between a client and a  
3     server, the client having a tuner, the client being capable of receiving broadcast  
4     information, the server having an executable application, the executable application  
5     requiring an amount of memory for proper execution, the server being configured to  
6     retransmit data over sequential time intervals;  
7           receiving an input at the client, the input corresponding to the executable  
8     application on the server; and  
9           determining, in response to receiving the input, whether the client has sufficient  
10    available memory for execution of the executable application.